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04/15/2005 04:21 PM

To Christopher Lichens/R9/USEPA/US@EPA
cc Mike.Grigorieff@CH2M.com
bcc
Subject soil WP comments

Chris,

attached are our comments on the soils WP Addendum 2.

Tom Soils WP Adden 2 review Attachment 2.pdf CDM On-Site Soils RIFS WP Addendum 040805- comments 041505.doc

# Review Comments on *On-Site Soils RI/FS Work Plan Addendum No. 2 Scope of Work for Additional Investigation, Omega Chemical Superfund Site, April 8, 2005*

TO: Christopher Lichens/USEPA Region IX

FROM: Tom Perina/CH2M HILL, Riverside
Mike Grigorieff/CH2M HILL, Santa Ana

DATE: April 15, 2005

As you requested, CH2M HILL reviewed the document prepared by Camp Dresser & McKee, Inc. (CDM), dated April 8, 2005, titled *On-Site Soils RI/FS Work Plan Addendum No. 2 Scope of Work for Additional Investigation, Omega Chemical Superfund Site*. CDM prepared the subject document on behalf of the Omega Chemical Site PRP Organized Group (OPOG).

Consistent with the oversight role of the U.S. Environmental Protection Agency (EPA), this technical memorandum presents recommendations that CH2M HILL believes will streamline and improve the project. The goal of this review is to confirm that the approach to the investigation is appropriate and consistent with the goals at this site and is consistent with typical industry practices.

This review lists comments sequentially as noted in the document. Editing-level issues are not addressed in this review.

## General Comments

1. Figure 6 and all subsequent figures do not show the north arrow. All maps should show north to facilitate review.
2. The building names (e.g., Star City, etc.) and street names shown in Plate 1 should be shown on maps (i.e., in figures).
3. Off-property sampling locations should be covered in this document to avoid later addenda. See an excerpt from the Consent Decree in Attachment 1 and Specific Comments 2, 11, 13, and 14.

## Specific Comments

4. Section 2.0, Objectives: Consistent with the Consent Decree, the objectives should include the characterization of the extent of the contamination resulting from the Omega site.

5. Figures 3 and 4: The sand unit at 120-feet elevation extends beneath GP-7 (between 700 and 600 feet on the horizontal scale in Figure 4) but terminates close to OW-8 on Figure 3. Similarly, the sandy unit at 80-feet elevation beneath GP-7 dips toward OW-8 on figure 3 but away from OW-8 in Figure 4. While the review recognizes that there is considerable uncertainty about the extent and dip of the units, the figures should show consistent interpretation of the lithology.

6. Section 3.1, Geologic Framework, 2nd par.: The thin sandy unit, referred to as a stringer, is not shown on the boring log for GP-2 or on cross-section A-A'. According to the text, this unit should correspond to the SP unit found at a depth of 56 feet at GP-1. It seems that this unit is not present at GP-2 or was not noticed during logging. Revise the text to reconcile.

7. Section 3.2 Contaminant Distributions: The speculative statement about other sources for Freons in the 2nd paragraph should be supported by evidence or deleted.

8. Section 3.2 Contaminant Distribution: Consistent with the interpretation of the soil gas concentrations, Freon 11 concentrations in soil should also be shown.

9. Section 3.2 Contaminant Distribution: Discussion of Figure 18 is missing.

10. Section 3.2 Contaminant Distribution: Page 6, 1st par. Revise the statement about the barrier effect of the capillary fringe to state that it affects non-aqueous phase liquids (NAPLs) in this manner, not compounds dissolved in infiltrating water. Note that contamination was likely released and exists at the site as both NAPL and dissolved in water.

11. Section 4.0 Proposed Scope of Work and Procedures: Page 7, 3rd par. One of the objectives of this investigation is to characterize the extent of the contamination. If contamination continues from the former Omega property under the adjacent properties, the investigation has to find 1) the limits of the Omega-related contamination, which would be expected to decrease in concentration away from the former Omega property, or 2) an indication of other sources, such as by concentrations increasing away from the former Omega property or different composition of contamination away from the former Omega property.

12. Section 4.0 Proposed Scope of Work and Procedures: Page 8, 3rd par. Discuss MP-7 to MP-12, their rationale, etc.

13. Section 4.0 Proposed Scope of Work and Procedures: Additional soil gas and MIP sampling locations are required as shown in Attachment 2. Two of these locations correspond to SG 13 and SG-14 where contaminant vapors were detected at 6 and 12 feet below ground surface. The soil-gas sampling depths at these locations should be 18-70 feet. MIP and possibly hydropunch (HP) sampling (depending on the MIP results) should also be performed at these two locations. Three soil gas and two MIP (and possibly HP) sampling locations are required along the property boundary with Medlin and Sons where high PCE and Freon 11 concentrations were detected in historical shallow soil gas samples. Three additional MIP (and possibly HP) samples are between the Terra Pave and Bishop Co. buildings, north of MIP-11, and north of MIP-1. Soil samples should also be analyzed for density, porosity, moisture content, organic carbon, etc. besides the planned analysis for VOCs. Further off-property

sampling locations will depend on the results for the samples currently shown. The Work Plan should include a rationale for the placement of additional off-property sampling locations and criteria for no further sampling.

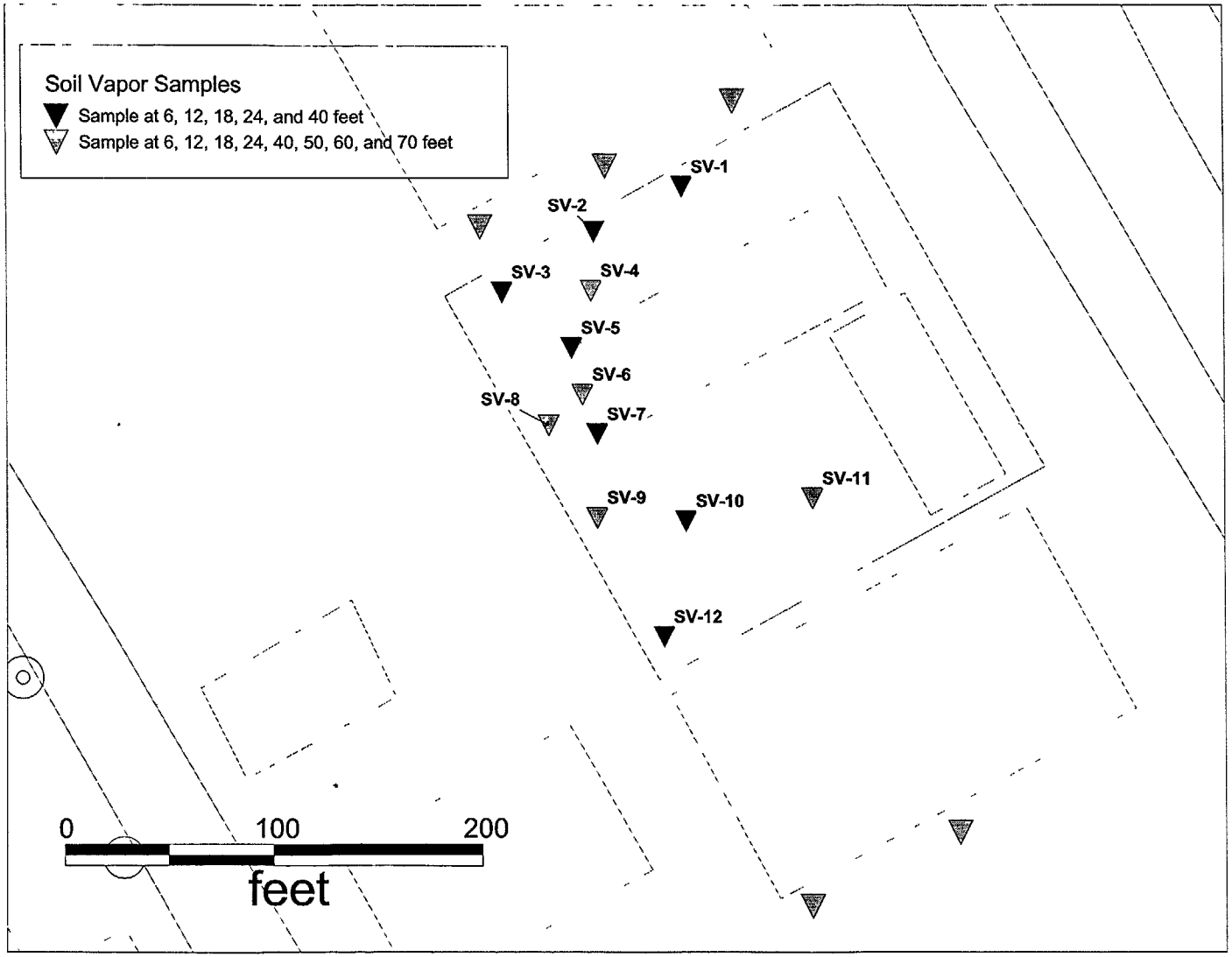
14. Section 5.0 Data Quality Objectives: Page 10, 1st par. The extent of contamination has to be defined prior to the decisions regarding remediation. The 2003 Final Work Plan (Sections 1 and 7) state that one of the objectives of the RI/FS is to estimate the extent and nature of the contaminants.

## Attachment 1

## Excerpt from the Consent Decree

IV DEFINITIONS, page 11, 1st par.:

*The soils RI/FS and risk assessment required under (iii) and (iv) above will be focused on the Omega Property itself. If, however, data are obtained during the RI/FS which indicate that soil or soil vapor contamination exists on adjacent properties is attributable to releases on the Omega Property, then investigations would extend to these off-site areas.*




CDM

**Figure 23 Location of Proposed Soil Vapor Samples**

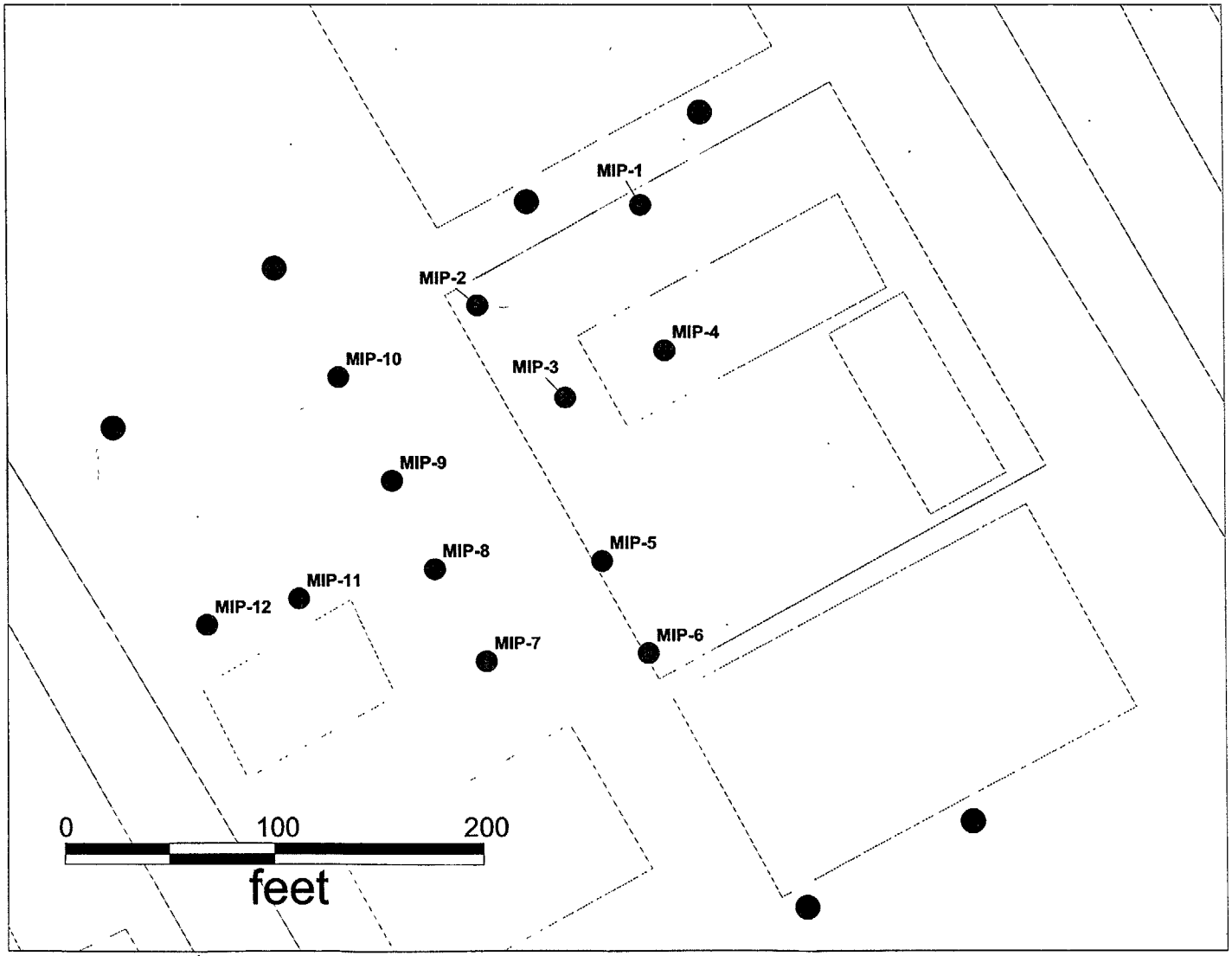



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**Figure 24 Location of MIP Borings**